ABSTRACT OF THE DISCLOSURE

A tunable lasing device (100) comprising a ring-shaped laser cavity (102), an optical gain element (104), a bi-directional output coupler (106) and a frequency selection means (114). The frequency selection means is generally a grating with a refractive index that determines a grating reflection frequency. Single mode laser operation is achieved where a cavity mode frequency of the ring-shaped laser cavity coincides with a grating reflection frequency. The refractive index of the grating can be modified by the injection of a variable current. In this way, the lasing frequency can be rapidly tuned between cavity mode frequencies.